DOCUMENT RESUME

ED 426 143 UD 032 698

AUTHOR Frey, Karin; Sylvester, Leihua
TITLE Research on the Second Step Program: Do Student Behaviors and Attitudes Improve? What Do Teachers Think about the Program?
PUB DATE 1997-00-00
NOTE 15p.; "Second Step" is a registered trademark.
AVAILABLE FROM Committee for Children, 2203 Airport Way South, Suite 500, Seattle, WA 98134-2027; phone: 800-343-1223.
PUB TYPE Information Analyses (070)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Aggression; Behavior Patterns; Curriculum; Elementary Education; Elementary School Students; Formative Evaluation; *Interpersonal Competence; Preschool Children; Preschool Education; *Prevention; Program Evaluation; *Student Attitudes; *Teacher Attitudes; *Violence
IDENTIFIERS *Second Step Violence Prevention Program

ABSTRACT

The Second Step program has been evaluated through formative evaluations of the curriculum versions before publication and outcome evaluations of the published versions. One outcome evaluation assessed student aggression and positive social behavior in students from 12 schools in Washington state in grades 1 through 3. It is concluded that the "Second Step" curriculum led to moderate decreases in aggression and increases in neutral and prosocial behavior in school. However, parent and teacher ratings of student behavior did not show any differences between the experimental and control groups. Another study assessed attitudes, teaching practices, and class climate over 3 years. Results from this study suggest that teachers and class climate undergo positive changes during program participation. Formative studies of the first edition curricula for "Second Step" for preschool through grade 8 were conducted in 12 public and 2 private schools in urban and suburban schools in Washington state. Results from five formative studies suggest that the "Second Step" program may foster social skills knowledge with students in preschool, elementary, and middle/junior high school classrooms. Some limitations of the formative studies are discussed. (Contains 26 references.) (SLD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Linda Garnett
Comm. for Children

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

ED 426 143

Research on the *Second Step* program:

Do student behaviors and attitudes improve? What do teachers think about the program?

Karin Frey, Ph.D. and Leihua Sylvester, M.Ed.

Committee for Children

University of Washington

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Background

Research shows that a common denominator among effective schools is the presence of a systematic program for fostering children's social and emotional development (Carnegie Council on Adolescent Development, 1989). Daniel Goleman's (1995) best-selling book, *Emotional Intelligence*, provides considerable evidence that failure to support development in this area deprives individuals of the skills necessary for successful and satisfying occupational, family and community lives. Social and emotional issues are also at the heart of many problems that plague schools and communities. Social and emotional skills give children resources they need to avoid drugs, delinquent behaviors and violence, high-risk sexual behaviors, depression, and school drop-out (Elias, Weissberg, Zins, Frey, Greenberg, Haynes, Kessler, Schwab-Stone & Shriver, 1997).

The negative effects of social-emotional problems are not limited to a vulnerable few. Students are sometimes afraid to come to school for fear of being assaulted (Geiger, 1993). Teachers find their energy and job satisfaction undermined by constant behavior problems. Opportunities for learning are

ED 426 143

diminished as teachers spend time attending to students' disruptive and angry outbursts, interpersonal conflicts and off-task behavior.

Research indicates that intervention programs can be effective in addressing the attitudes and social-cognitive deficits that contribute to aggressive and high-risk behavior. The most effective programs employ interactive methods such as role playing, discussions and leadership opportunities to foster emotional understanding, perspective-taking, problem-solving and emotion management skills (Weissberg & Greenberg, 1997). *Second Step* was developed to provide teachers with an research-based program that would help them teach essential social and emotional skills to their students.

The *Second Step* Program

Drawing from an extensive theoretical and empirical base, the *Second Step* program attempts to foster students' emotional understanding, perspective taking, social problem solving, impulse control, and anger management. The developmentally sequenced series of curricula spans four age groups: Preschool - kindergarten, first - third grade, fourth - fifth grades, and middle school/ junior high. The lesson format consists of photographs and stories that depict social situations requiring problem solving or specific social skills; also included are video vignettes designed to stimulate discussion and skill practice. After discussion of the problem or concept, the teacher models and coaches role playing of the skill. Teachers and other school personnel facilitate transfer of the *Second Step* training by providing decision-making opportunities and cueing students to use the skills throughout the day.

The Carnegie Council on Adolescent Development listed *Second Step* as one of seven violence prevention programs judged as "promising" (Wilson-Brewer, Cohen, O'Donnell, & Goodman, 1991). Their report emphasized,

however, the need for considerably more research in this area, particularly with regard to program influences on behavior.

The *Second Step* program was evaluated in two ways: (1) Formative studies of prepublication versions of the program, and (2) outcome evaluations of the published versions. The formative studies were used to assist program development. They examined student learning and teacher reactions to the program prototype. A formative study of the second edition of the middle school/junior high curriculum also included measures of student attitudes about antisocial behavior and beliefs about their ability to perform construct alternatives. Two outcome evaluations were conducted which used experimental designs to examine the effect of published *Second Step* curricula on elementary teacher and student attitudes and behaviors. These outcome evaluations included both brief and multi-year interventions

I. OUTCOME EVALUATIONS

Assessing Student aggression and positive social behavior

Dr. David Grossman and colleagues at the Harborview Injury Prevention and Research Center at the University of Washington undertook a one-year evaluation of the *Second Step* curricula for grades 1- 3 (Grossman, Neckerman, Koepsell, Ping-Yu, Asher, Beland, Frey, & Rivara,1997). This study was funded by the Centers for Disease Control and Prevention to examine the effect of the program on aggression and positive social behavior among elementary school students.

Twelve schools from urban and suburban areas of Western Washington state were paired to reflect similar socio-economic and ethnic makeups. Random assignment was used to place one school from each matched pair in the control group and one school in the experimental group. Second and third

grade classes (four from each school) were targeted for participation, and parental consent was obtained. The *Second Step* curriculum was taught to students by their classroom teachers, who received training from Committee for Children.

Trained coders, blind to school assignment, observed 588 students in their classrooms, lunchrooms, and playgrounds in October, prior to the start of *Second Step* lessons in the intervention schools.[1] Each student was observed for at least twelve occasions, for a total of 60 minutes. Observations were also conducted in the spring, two weeks after completion of Second Step lessons; and in the following autumn, six months after completion of the curriculum.

Observations indicated that physical aggression (e.g., hitting) decreased from autumn to spring among students who were in the *Second Step* program, but increased among students in the control classes. The decreases were greatest in the playground and lunchroom settings (see Figure 1). Six months later, students in the *Second Step* classes continued to show significantly lower levels of physical aggression.

Hostile and aggressive comments (e.g., threats, name-calling) also decreased over the school year in the *Second Step* classrooms, but increased in the control classrooms. Friendly behavior, including prosocial (e.g., "I'll share my snack with you.") and neutral interactions (e.g., "Who's turn next?") increased from autumn to spring in the *Second Step* classes, but remained constant in the control classes. As with physical aggression, differences between the groups were greatest on the playground and in the lunch room. Six months later, students in the *Second Step* classes maintained the higher levels of positive interaction.

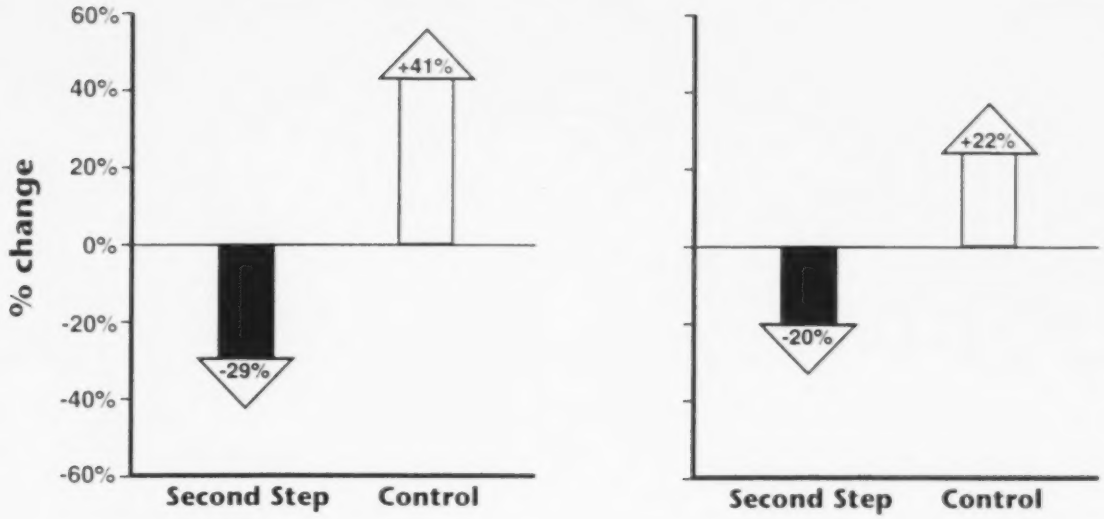
---

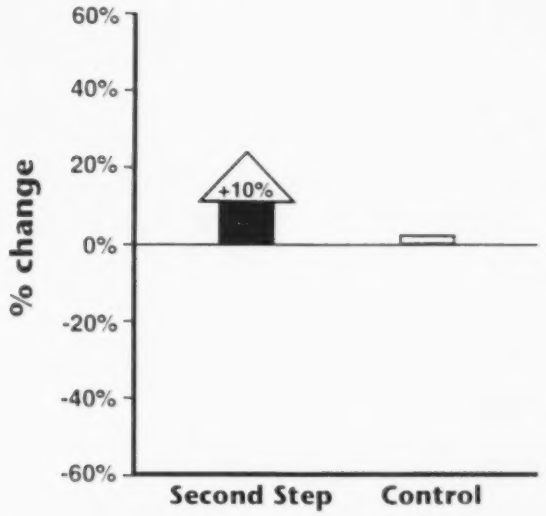
[1] Twelve subjects from each class were randomly selected for these intensive observations.

Figure 1

Changes in Social Behavior: Autumn to Spring

Playground and lunchroom events





(compiled from Grossman, Neckerman, Koepsell, Ping-Yu, Asher, Beland, Frey & Rivara, 1997)

The authors concluded that the *Second Step* curriculum leads to moderate decreases in aggression and increases in neutral and prosocial behavior in school. These changes assume greater significance when compared to those in the control schools. Without the *Second Step* curriculum, student behavior worsened, becoming more physically and verbally aggressive over the school year.

In light of these positive results, it is somewhat surprising that parents and teacher ratings of student behavior did not show any differences between the experimental and control groups. Teachers completed (1) the School Social Behavior Scale (Merrell, 1993) and (2) the aggression and delinquency scales of the Teacher Report Form (Achenbach, 1991) for each subject at each of the three data collection periods. Parents and guardians of the subjects also completed two forms at each period: (1) the Parent-Child Rating Scale (Hightower, Work & Cowen, 1986) and (2) the aggression and delinquency scales of the Child Behavior Checklist (Achenbach, 1991b). Reports by parents and teachers indicated little change between the baseline and post-intervention periods in either the intervention or control schools.

The investigators suggested that parents and teachers may not have had opportunities to witness improvements in their children's behavior, since most of the aggressive episodes took place on the school playground. It is also possible that school interventions do not transfer to the home setting unless other family members are also taught the skills.

Assessing attitudes, teaching practices, and class climate

Frey, Nolen and colleagues at the University of Washington are completing a three-year longitudinal study on the effects of *Second Step* participation on teachers' and students' attitudes and behavior. This study was undertaken because previous investigators have found that the effects of social

and emotional learning programs are stronger after teachers have two or three years' experience teaching the program (e.g., Coie & Koeppl, 1990; Kendall, Ronan & Epps, 1991; Pepler, King & Byrd, 1991).

Preliminary analyses of the first cohort indicated that teachers' support for teaching social-emotional skills increased and students' reports of class climates became more positive after two years of participating in the *Second Step* program (Frey, 1997). During structured interviews, teachers reported that improvements in class climate and their own personal growth led to greater commitment to the program (Nolen, Frey, Sylvester, & Hirschstein, 1997).

Other analyses of the early data have focused on individual differences in study teachers, particularly with regard to their attitudes about authority and the importance of facilitating student social and emotional development. For example, students in classes where teachers emphasized the importance of teacher authority (e.g., "Students should learn to follow rules without question.") were less likely than other students to report a positive class climate (e.g., "Students really care about each other.") unless their teachers also reported a strong emphasis on the skills presented in the *Second Step* program (Sylvester, 1996).

Conclusions from Outcome Evaluations

The experimental methods used in the outcome evaluations enable us to measure the effects of the program on student attitudes and behavior, and to determine which conditions enhance program effectiveness. The most rigorous measure of student behavior, observations by trained observers, suggests that *Second Step* can lead to reductions in aggression and increases in positive social interaction in unstructured situations such as the school playground.

The discrepancy between teacher reports of student behavior and observations by trained personnel identifies a potential problem for educators:

benefits are not always obvious. In this study, *Second Step* students showed modest decreases in aggression over the school year, while control students showed dramatic increases. Teachers who are presenting a program, however, will not have access to both sets of information. That is, they will not know what their students would be like if the program were not taught. This poses an important challenge for administrators since teachers need to know their time and effort are paying off. Administrators need to find ways to illustrate the positive effects of such intervention programs in order for teachers and parents to be committed supporters.

Early results from the longitudinal evaluation of Frey and Nolen suggest that teachers and class climate also undergo positive changes during program participation. Positive class climates foster student attachment to school, motivation to learn, and academic performance (Hawkins, Catalano & Associates, 1992; Solomon, Watson, Battistich, Schaps & Delucchi, 1992). By examining the relationship of practices such as teacher modeling, coaching and cueing of social problem-solving to student behavior and attitudes, we hope to determine which teaching practices are most important for fostering healthy social-emotional development.

II. FORMATIVE STUDIES

Formative studies of the first edition curricula

Formative studies of the first edition curricula for students in Pre-k through Grade 8 were conducted in twelve public and two private schools located in urban and suburban areas in western Washington. Teachers who taught the prototype versions gave high ratings to the program in general, the lesson format, and the teacher's guide. Teachers rated the lessons as easy to

prepare, easy to incorporate into other subjects, and very good at stimulating student interest (Beland, 1988; 1989; 1991; Moore & Beland, 1992).

Social and emotional learning was assessed by interviewing students who did or did not receive the *Second Step* program in their classrooms. This included 85 and 38, respectively, at the preschool or kindergarten level, 19 and 16 in grades 1-3, 71 and 46 in grades 4-5, and 34 and 13 in grades 6-8. An initial assessment occurred one week prior to start of the curriculum in *Second Step* classrooms and a follow-up assessment occurred one week after the final lesson. Items dealt with the areas of perspective taking, problem solving, and anger management (e.g., "How do you think Janice is feeling?" and "What are all the things Janice could do about the problem?").

Children's perspective-taking and social problem-solving abilities improved significantly after participating in the *Second Step* program. Children in classrooms without *Second Step* lessons showed no improvement from Time 1 to Time 2. Although scores of the two groups did not differ at initial testing, children who received *Second Step* lessons displayed significantly higher skill levels at second testing than children who did not.

Children receiving *Second Step* in the four grade ranges showed similar gains in knowledge scores (ranging from 42% to 55%). Possible age differences were directly assessed by comparing preschool and kindergarten knowledge gains. Kindergartners demonstrated significantly more knowledge of social skills than preschoolers at both test times. The amount of increase in knowledge was similar and significant for both groups, however. This indicates that even children as young as four years can increase their knowledge of social skills in a classroom setting.

Second Edition: Middle School/Junior High

An evaluation of a revised and expanded middle school/junior high curricula was conducted in five middle/junior high schools (Sylvester, Beland & Frey, 1996). Two were in western Washington State, one in southern California, and two in Nova Scotia, Canada. Students were assigned to one of the three curriculum levels according to their year in secondary school. Thus, the Year 1 group consisted of 179 sixth-grade middle school students and 208 seventh-grade junior high students. The Year 2 group consisted of 174 seventh grade middle school students and 153 eighth-grade junior high students. The Year 3 group consisted of 73 eighth-grade middle-school students.

Students were tested prior to start of the curriculum in participating classrooms and after completion. Three written measures were administered in class by a student appointed to collect the anonymous response sheets, seal them in an envelope, and deliver them to the office for mailing. The measures included two attitude surveys and a multiple choice knowledge assessment. One attitude survey asked students to indicate their level of agreement with statements endorsing the use of aggressive and non-aggressive alternatives, gossiping, excluding individuals from social groups and being a bystander to fights. The other asked students to rate the difficulty of performing such skills as understanding another's point of view, resisting negative peer pressure, and generating solutions to problems.

The questionnaire data showed that students who had participated in the *Second Step* program were less likely to endorse antisocial behavior, less likely to perceive prosocial skills as difficult to perform, and more knowledgeable about the skills than students who did not participate in the program. Changes from pre-test to post-test indicated that both boys and girls benefited from participation, although benefits to boys in the first year of secondary school were weaker than for students in the other groups. These

boys did not show significant decreases in their endorsement of antisocial behavior, although they did become more knowledgeable and less likely to view prosocial skills as difficult, as did the other groups.

Students who participated in the *Second Step* program also showed greater gains in knowledge than those who did not receive lessons. Middle school and junior high students who received the program rated it as important and moderately enjoyable (Beland & Sylvester, 1996).

Conclusions from Formative Studies

Results of the five formative studies suggest that the Second *Step* program may foster social skills knowledge with students in preschool, elementary, and middle/junior high school classrooms. Students in middle school and junior high who received the program were less likely than comparison students to view aggressive behavior as legitimate or to perceive prosocial behavior as difficult to perform. These are encouraging results since previous research has shown that these attitudes are highly predictive of aggression (Slaby & Geurra, 1988), and can be difficult to change.

A limitation of the formative studies is the lack of random assignment to group. Consequently, the positive responses of teachers to the program may be limited to this select group. It is also possible that the greater knowledge and more positive attitudes found in the *Second Step* groups could be due to general teaching practices characteristic of these teachers rather than participation in the *Second Step* program. Results of these formative studies cannot be completely dismissed, however, given the improvements observed in aggression and positive social behavior in the more rigorous outcome evaluation.

BIBLIOGRAPHY

Achenbach, T.M. (1991). Manual for the Child Behavior Checklist and 1991 Profile. Burlington, VT: University of Vermont School of Psychiatry.

Achenbach, T.M. (1991). Manual for the Teacher's Report Form and 1991 Profile. Burlington, VT: University of Vermont School of Psychiatry.

Beland, K. (1988). *Second Step, grade 1-3* Seattle, WA: Committee for Children.

Beland, K. (1989). *Second Step, grades 4-5.* Seattle, WA: Committee for Children.

Beland, K. (1991). *Second Step, preschool-kindergarten.* Seattle, WA: Committee for Children.

Beland, K. & Sylvester, L. (1997). Teacher and student evaluation of *Second Step*, Middle School/Junior High. Seattle, WA: Committee for Children.

Carnegie Council on Adolescent Development Report of the Taskforce on Education of Young Adolescents. (1989). *Turning points: Preparing America for the 21st century.* New York: Carnegie Corp.

Coie, J. D. & Koeppl, G. K. (1990). Adapting intervention to the problems of aggressive and disruptive rejected children. In S.R. Asher & J.D. Coie (Eds.), *Peer rejection in childhood* (pp. 309-337). New York: Cambridge.

Elias, M. J., Zins, J. E., Weissberg, R. P., Frey, K. S., Greenberg, M. T., Haynes, N. M., Kessler, R., Schwab-Stone, M. E., & Shriver, T. P. (in press). *Fostering knowledgeable, responsible and caring students: Guidelines for Social and emotional education.* Alexandria, VA: Association for Supervision and Curriculum Development.

Frey, K.S. (1997). Unpublished data. University of Washington, Seattle, WA.

Geiger, K. (1993, January 14). *Violence in the schools.* Statement presented at a news conference by the president of the National Education Association, Washington, DC.

Goleman, D. (1995). *Emotional intelligence.* New York: Bantam.

Grossman, D.C., Neckerman, H.J., Koepsell, T.D., Liu, P.Y., Asher, K.N., Beland, K., Frey, K.S., & Rivara, F. R. (1997). The effectiveness of a violence prevention curriculum among children in elementary school: A randomized control trial. Journal of the American Medical Association, 277, 1605 - 1611.

Hawkins, J. D., Catalano, R. F. & Associates. (1992). *Communities that care: Action for drug abuse prevention.* San Francisco.

Hightower, A.D. (1990). The Parent-Child Rating Scale. Rochester, NY: University of Rochester Department of Psychology, Center for Community Study.

Kendall, P. C. Ronan, K. R. & Epps, J. (1991). Aggression in children and adolescents: Cognitive-behavioral treatment perspectives. In D. J. Pepler & K. H. Rubin (Eds.), *The development and treatment of childhood aggression* (pp. 341-360). Hillsdale, NJ: Erlbaum.

Merrell, K.W. (1993). Using behavioral rating scales to assess social skills and antisocial behaviors in school settings: Development of School Social Behavior Scales. *School Psychology Review*, **22**, 115-133.

Moore, B. & Beland, K. (1992). *Evaluation of Second Step, preschool-kindergarten: A violence-prevention curriculum kit. Summary report.* Seattle: Committee for Children.

Nolen, S. B., Frey, K. S., Sylvester, L. & Hirschstein, M. (1997). Following steps or dancing the dance: Teachers' beliefs, goals, and strategies; and their use of a social-emotional skills curriculum. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Pepler, D .J., King, G., & Byrd, W. (1991). A social-cognitively based social skills training program for aggressive children. In D. J. Pepler & K. H. Rubin (Eds.), *The development and treatment of childhood aggression* (pp. 361-379). Hillsdale, NJ: Erlbaum.

Slaby, R. G. & Guerra, N. G. (1988). Cognitive mediators of aggression in adolescent offenders: 1. Assessment. *Developmental Psychology*, **24**, 580-588.

Solomon, D., Watson, M. S., Delucchi, K. L., Schaps, E., & Battistich, V. (1988). Enhancing children's prosocial behavior in the classroom. *American Educational Research Journal, 25*, 527-554.

Sylvester, L., Beland, K., & Frey, K. S. (1997). A preliminary evaluation of *Second Step*, Middle School/Junior High: Changes in social attitudes and knowledge. Seattle, WA: Committee for Children.

Sylvester, L. (1996). Promoting students' sociomoral development: Relationships between teacher beliefs and student behavior. Unpublished manuscript, University of Washington.

Weissberg, R. P. & Greenberg, M. T. (1997). School and community competence-enhancement and prevention programs. In W. Damon, I. E. Sigel, & K. A. Renninger (Eds.) *Handbook of child psychology: vol. 5. Child psychology in practice* (5th Ed.). New York: John Wiley & Sons.

Wilson-Brewer, R., Cohen, S., O'Donnell, L., & Goodman, I. F. (1991). *Violence prevention in young adolescents: A survey of the state of the art.* Newton, MA: Educational Development Center, Inc.

Seattle, WA: Committee for Children, 1997.